



Attorney Docket # 3397-111PRCE

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Rauno RANTANEN et al.

Serial No.: 10/019,120

Filed: January 30, 2002

For: Method and Apparatus for Spreading Treating Agent on a Moving Web

Examiner: Turocy, David P.
Group Art: 1762

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

SIR:

This is a Request for a Panel Review of Issues on Appeal in accordance with the Office Gazette Notice dated July 12, 2005. The present request is filed concurrently with a Notice of Appeal and is filed before an Appeal Brief. No amendments are being filed with this request.

Arguments supporting the Request for Review begin on page 2 of the present communication.

ARGUMENTS

This Notice of Appeal and Request is filed in response to the final Office Action dated August 2, 2006 and the Advisory Action dated November 28, 2006.

The matters to be reviewed are (1) whether independent claims 20 and 57 are anticipated by U.S. Patent No. 4,901,093 (Ruggiero), (2) whether independent claim 83 is anticipated by U.S. Patent No. 5,649,867 (Briggs), (3) whether independent claims 20 and 57 are obvious in view of U.S. Patent No. 5,789,022 (Kustermann) in view of U.S. Patent No. 4,072,772 (Franz) and U.S. Patent No. 6,063,450 (Bernert), and (4) whether independent claims 78, 82, and 83 stand rejected under 35 U.S.C. §103 as unpatentable over Ruggiero in view of U.S. Patent No. 5,736,195 (Haaland).

Rejection of Independent Claims 20 and 57 under 35 U.S.C. §102

Independent claims 20 and 57 are each rejected under 35 U.S.C. §102 as anticipated by U.S. Patent No. 4,901,093 (Ruggiero).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Ruggiero fails to disclose “forming continuous jets of the treating agent by directing the treating agent through openings in at least one nozzle plate”, as recited in claim 20, and “said at least one nozzle plate including openings in which continuous jets of the treating agent are formed when the feeding chamber is at least partially filled with pressurised treating agent”, as recited in claim 57, because Ruggiero discloses formation of droplets.

Ruggiero discloses a method and apparatus for printing with ink jet chambers, wherein a single impulse ink jet chamber has a plurality of orifices (see col. 3, lines 28-30 of

Ruggiero). In each chamber 36, a diaphragm 44 is coupled to transducers 46, 48 (col. 3, lines 39-41). When a transducer is energized, the diaphragm 44 is moved toward the orifices 40 and droplets are ejected from the orifices 40 (col. 3, lines 51-56). The Examiner alleges that Ruggiero discloses a continuous jet. However, the formation of droplets recited by Ruggiero can not be considered to disclose “forming continuous jets of the treating agent by directing the treating agent through openings in at least one nozzle plate”, as expressly recited in independent claim 20. The Examiner contends that Ruggiero is continuous for a small amount of time. However, Ruggiero only discloses that droplets are formed. There is no disclosure of a continuous jet being formed even for a very short period of time.

The Examiner states that “openings in which continuous jets are formed” as recited in independent claim 57 is merely intended use. However, the nozzles must be designed to form a continuous jet. For example, an orifice may be so small that only a droplet is released at one time even under high pressure. In Ruggiero, the orifices are designed to release only droplets and not a jet when the diaphragm is actuated. Since Ruggiero discloses only that droplets are formed when the diaphragm is actuated, Ruggiero fails to teach or suggest “said at least one nozzle plate including openings in which continuous jets of the treating agent are formed when the feeding chamber is at least partially filled with pressurised treating agent”, as recited in claim 57.

In view of the above remarks, independent claims 20 and 57 are not anticipated by Ruggiero.

Rejection of Claim 83 under 35 U.S.C. §102

Claim 83 stands rejected under 35 U.S.C. §102 as anticipated by U.S. Patent No. 5,649,867 (Briggs). Briggs fails to disclose “at least one nozzle plate that at least partly closes

said at least one feeding chamber” and “an actuator operatively connected to said at least one nozzle plate for moving said at least one nozzle plate relative to said at least one feeding chamber so that said at least one nozzle plate is at least partly outside the width of the area of the moving surface that is to be treated”.

Briggs discloses a portable waterplay structure having various water forming devices. The Examiner alleges that the adjustable shower disclosed at col. 7, lines 40-47, discloses the claimed actuator. However, the claimed actuator moves a nozzle plate relative to the feeding chamber. Only the portion indicated by 151 in Fig. 2 of Briggs can be considered to be the nozzle plate. This portion is not moved relative to a chamber by an actuator. Rather, it is moved with the chamber in the shower head when the shower head is adjusted by the user. Accordingly, Briggs fails to disclose the claimed actuator.

In view of the above remarks, the rejection of claim 83 under 35 U.S.C. §102 should be withdrawn.

Rejection of Claims 20 and 57 under 35 U.S.C. §103

Independent claims 20 and 57 are rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 5,789,022 (Kustermann) in view of U.S. Patent No. 4,072,772 (Franz) and U.S. Patent No. 6,063,450 (Bernert).

The Examiner alleges that “forming continuous jets of the treating agent by directing the treating agent through openings in at least one nozzle plate, the openings in which the jets are formed being defined solely by the at least one nozzle plate”, as recited in claim 20 is disclosed by Franz. However, as acknowledged by the Examiner, Franz discloses that a working fluid medium is passed through a tube 278 (see col. 10, line 68 to col. 11, line 2 of Franz). Furthermore, Franz teaches that the holes 280, in which the exit end of the tube 278 is inserted,

are designed so that a carrier medium can be passed through the holes 280 to atomize the working fluid medium passing out of the tube 278 (see col. 11, lines 7-13). Atomized fluid is not a continuous jet. Thus the holes 280 in Franz have nothing to do with forming jets. Since Franz discloses that the working fluid medium flows through a tube 278 and that the flow is atomized, Franz fails to teach or suggest the step of “forming continuous jets of the treating agent by directing the treating agent through openings in at least one nozzle plate, the openings in which the jets are formed being defined solely by the at least one nozzle plate”, as expressly recited in independent claim 20.

The Examiner also alleges that “said openings in which the jets are formed are defined solely by said at least one nozzle plate”, as recited in claim 57, is disclosed by Franz. As stated above, the Franz discloses a pipe 278 which at least partially forms the jet. Accordingly, Franz fails to teach or suggest a nozzle plate having openings, wherein “said openings in which the jets are formed are defined solely by said at least one nozzle plate”.

The Examiner alleges that “continuous jets” are not defined in the specification. However, page 6, lines 1-5, of the published application discloses that the diameter of the jets are very small and are not dispersed into spray to maintain mass and impulse strength.

In view of the above remarks, the rejection of independent claims 20 and 57 should now be withdrawn.

Rejection of claims 78 and 83 under 35 U.S.C. §103

Independent claims 78, 82, and 83 stand rejected under 35 U.S.C. §103 as unpatentable over Ruggiero in view of U.S. Patent No. 5,736,195 (Haaland).

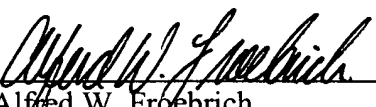
The combined teachings of Ruggiero and Haaland fails to disclose, teach, or suggest “moving the at least one nozzle plate relative to the at least one feeding chamber”, as recited in

claim 78, or “an actuator operatively connected to said at least one nozzle plate for moving said at least one nozzle plate relative to said at least one feeding chamber”, as recited in claim 83. The Examiner alleges that Ruggiero discloses moving the nozzle transversely to the direction of the moving surface. Even if that statement were true -- which it is not, because the paper does not move when the print head scans the page -- Ruggiero fails to disclose, teach or suggest that the nozzle moves relative to the at least one feeding chamber. In contrast, Ruggiero discloses that the chamber 36 and orifices 40 are both parts of the print head and are moved simultaneously with the print head. Haaland does not disclose moving the nozzle plate.

Thus the combined teachings of Ruggiero and Haaland can not be considered to teach or suggest “moving the at least one nozzle plate relative to the at least one feeding chamber”, as recited in independent claims 78 and 83.

For all of the above reasons, the independent claims 20, 57, 78, and 83 are allowable over the prior art of record. The dependent claims should be allowable for at least the same reasons.

Respectfully submitted,
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